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(54) **ALLOGENEIC TUMOR CELL VACCINE**(71) Applicant: **ALLOPLEX BIOTHERAPEUTICS, INC.**, Woburn, MA (US)(72) Inventor: **Frank Borriello**, Winchester, MA (US)(73) Assignee: **ALLOPLEX BIOTHERAPEUTICS, INC.**, Woburn, MA (US)(21) Appl. No.: **17/233,124**(22) Filed: **Apr. 16, 2021****Related U.S. Application Data**

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(57)

ABSTRACT

The described invention provides a tumor cell vaccine comprising genetically modified tumor cell line of a particular tumor type that stably expresses high levels of two or more immunomodulators. According to some embodiments, an immunogenic amount of the tumor cell line variants may be selected for concomitant expression of two or more of recombinant membrane expressed IgG1, CD40L, TNF- α , as well as membrane and soluble forms of GM-CSF, and Flt-3L peptides that are effective to elicit an anti-tumor immune response compared to the parent unmodified tumor cell line as measured in vitro by a one-way mixed lymphocyte tumor reaction assay using human peripheral blood mononuclear cells and the genetically modified allogeneic cell vaccine candidate. According to some embodiments, the tumor cell vaccine candidate will induce an immune response in the recipient cancer patient that cross reacts with the patient's own (autologous) tumor cells, the effects of which will be sufficient to result in enhanced anti-tumor immunity contributing to the increased survival of a vaccinated patient cohort compared to a matched unvaccinated patient cohort.

Specification includes a Sequence Listing.